

CLAIM AMENDMENTS

1. (Currently Amended) A method for producing a hydrocyanic acid synthesis catalyst which comprises selecting an iron source and form for the hydrocyanic acid synthesis catalyst and having a an iron surface and sequentially exposing the iron surface to oxidative and reductive atmospheres.

2. (Currently Amended) A method for producing hydrocyanic acid synthesis catalyst according to claim 1 wherein said form is an iron pipe and the inner surface of an said iron pipe is sequentially exposed to oxidative and reductive atmospheres.

3. (Currently Amended) A method for producing hydrocyanic acid synthesis catalyst according to claim 1 or claim 2 wherein the cycle of exposure to oxidative and reductive atmospheres is carried out more than once.

4. (Currently Amended) The A method for producing a hydrocyanic acid synthesis catalyst which comprises selecting an iron source and form for the hydrocyanic acid synthesis catalyst and having an iron surface and sequentially exposing the iron surface to oxidative and reductive atmospheres, of claim 1 wherein the oxidative atmosphere is being a gas containing from about 5% to 30% by volume of oxygen.

5. (Original) The method of claim 1 wherein the reductive atmosphere is a gas containing between 1% and 99% by volume of hydrogen.

6. (Currently Amended) The method of claim 4 wherein the oxidative atmosphere is a gas containing from about 5% to 30% by volume of oxygen and the reductive atmosphere is a gas containing between 1% and 99% by volume of hydrogen.

7. (Currently Amended) The A method of claim 1 for producing a hydrocyanic acid synthesis catalyst which comprises selecting an iron source and form for the hydrocyanic acid

synthesis catalyst and having an iron surface and sequentially exposing the iron surface to oxidative and reductive atmospheres wherein the exposure of the iron surface to the oxidative atmosphere is conducted under the conditions that the temperature is in the range of about 300°C to 650°C, the pressure is in the range of from about 6 kPa to 150 kPa, a space velocity of from about 10 to 150h⁻¹ and the time is from about 5 to 300 minutes.

8. (Currently Amended) The A method of claim 1 for producing a hydrocyanic acid synthesis catalyst which comprises selecting an iron source and form for the hydrocyanic acid synthesis catalyst and having an iron surface and sequentially exposing the iron surface to oxidative and reductive atmospheres wherein the exposure of the iron surface to the reductive atmosphere is conducted under the conditions that the temperature is in the range of about 300°C to 650°C, the pressure is in the range of from about 6 kPa to 150 kPa, a space velocity of from about 10 to 150h⁻¹ and the time is from about 5 to 300 minutes.

9. (Currently Amended) The A method of claim 4 wherein the exposure of the iron surface to the oxidative and reductive atmospheres is conducted under the conditions that the temperature is in the range of about 300°C to 650°C, the pressure is in the range of from about 6 kPa to 150 kPa, a space velocity of from about 10 to 150h⁻¹ and the time is from about 5 to 300 minutes.

10. (Currently Amended) A hydrocyanic acid synthesis catalyst of a selected iron source and form and having an iron surface characterized by the presence of a surface having an oxide layer that has been prepared by sequential exposure of an said iron surface to oxidative and reductive atmospheres.

13. (New) The method of claim 3 wherein at least 10 cycles ^{of exposure are carried out} ^A are utilized.